

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously presented) A method for determining the onset of colorectal adenoma in a human individual, said method comprising measuring the level of an mRNA or the protein encoded by said mRNA in a blood, serum, stool or gastrointestinal tract sample from said individual, wherein said mRNA comprises the RNA equivalent of SEQ ID NO: 7, ~~wherein and determining the onset of colorectal adenoma in said individual based on an increase in the level of expression of said nucleic acid molecule relative to the normal level of expression of said nucleic acid molecule in a human is indicative of the onset of said adenoma in said individual.~~

2-12. (Cancelled)

13. (Previously presented) The method according to claim 1 wherein the level of the protein is being measured.

14-15. (Cancelled)

16. (Withdrawn) A method for determining the onset colorectal adenoma in a human, said method comprising detecting the co-expression of two or more nucleic acid molecules in a blood, serum, stool or gastrointestinal tract sample from said human, where at least one nucleic acid molecule comprises SEQ ID NO: 7 and at least another nucleic acid molecule is selected from the following:

- (i) nucleic acid molecules comprising a nucleotide sequence as set forth in any one of SEQ ID NOs: 1-2, SEQ ID NOs: 4-6, SEQ ID NOs: 8-32, SEQ ID NOs: 35-37, SEQ ID NO: 38, SEQ ID NOs: 40-43, SEQ ID NOs: 45-49, SEQ ID NOs: 51-56, SEQ ID NOs: 58-60, SEQ ID NO: 62, SEQ ID NOs: 64-66, SEQ ID NOs: 68-72 or SEQ ID NOs: 337-338; or

- (ii) a nucleic acid molecule comprising a nucleotide sequence complementary to any one or more of the sequences of (i);

wherein expression of said at least one nucleic acid molecule comprising SEQ ID NO: 7 is determined by measuring the level of an mRNA or the protein encoded by said mRNA, wherein said mRNA comprises the RNA equivalent of SEQ ID NO: 7, and wherein the co-expression of said nucleic acid molecules is indicative of the onset of said adenoma.

17-18. (Cancelled)

19. (Withdrawn ) The method according to claim 16 wherein said nucleotide sequence co-expression is the co-expression of SEQ ID NO: 7 and any two of SEQ ID NO: 14, SEQ ID NO: 16, SEQ ID NO: 24, SEQ ID NO: 65, SEQ ID NO: 19, SEQ ID NO: 1, SEQ ID NO: 53, SEQ ID NO: 72, SEQ ID NO: 11 or SEQ ID NO: 26.

20. (Withdrawn) The method according to claim 19 wherein the subject nucleotide sequences are co-expressed as a profile of three, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 11;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 26;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 1;
- (v) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24; or
- (vi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16.

21. (Withdrawn) The method according to claim 19 wherein the subject nucleotide sequences are co-expressed as a profile of three, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 56 and SEQ ID NO: 11;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 11;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 11;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 9 and SEQ ID NO: 11; or

(v) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 11.

22. (Withdrawn) The method according to claim 16, wherein said nucleotide sequence co-expression is the co-expression of SEQ ID NO: 7 and any three of SEQ ID NOs: 4-6, SEQ ID NO: 9, SEQ ID NO: 13, SEQ ID NO: 15, SEQ ID NOs: 21-22, SEQ ID NOs: 27-29, SEQ ID NOs: 30-31, SEQ ID NO: 36, SEQ ID NOs: 37-38, SEQ ID NO: 40, SEQ ID NO: 43, SEQ ID NOs: 48-49, SEQ ID NO: 52, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 64, SEQ ID NOs: 68-69, SEQ ID NO: 71 or SEQ ID NO: 337.

23. (Withdrawn) The method according to claim 22 wherein the subject nucleotide sequences are co-expressed as a profile of four, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 65;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 19;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 53 and SEQ ID NO: 1;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16 and SEQ ID NO: 19;
- (v) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16 and SEQ ID NO: 46; or
- (vi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 65 and SEQ ID NO: 1.

24. (Withdrawn) The method according to claim 22 wherein the subject nucleotide sequences are co-expressed as a profile of four, which profile is selected from the list of:

- (i) SEQ ID NO: 30 and SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 1;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 43 and SEQ ID NO: 14 and SEQ ID NO: 24;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 43 and SEQ ID NO: 59 and SEQ ID NO: 1;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 49 and SEQ ID NO: 24;
- (v) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 49 and SEQ ID NO: 16;
- (vi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 49 and SEQ ID NO: 1;
- (vii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 21 and SEQ ID NO: 16;
- (viii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 21 and SEQ ID NO: 1;
- (ix) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NOs: 27-29 and SEQ ID NO: 24;
- (x) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NOs: 27-29 and SEQ ID NO: 16;

- (xi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NOs: 27-29 and SEQ ID NO: 1;
- (xii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 56 and SEQ ID NO: 1;
- (xiii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 9 and SEQ ID NO: 24;
- (xiv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 9 and SEQ ID NO: 37;
- (xv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 9 and SEQ ID NO: 16;
- (xvi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 9 and SEQ ID NO: 1;
- (xvii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 16;
- (xviii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 46;
- (xix) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 1; or
- (xx) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 337.

25. (Withdrawn) The method according to claim 22 wherein the subject nucleotide sequences are co-expressed as a profile of four, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 5 and SEQ ID NO: 1;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 65 and SEQ ID NO: 16;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 65 and SEQ ID NO: 1;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 53 and SEQ ID NO: 37;
- (v) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 53 and SEQ ID NO: 48;
- (vi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 68 and SEQ ID NO: 1;
- (vii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 31 and SEQ ID NO: 1;
- (viii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 69 and SEQ ID NO: 16;
- (ix) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 69 and SEQ ID NO: 1;
- (x) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 52 and SEQ ID NO: 1;
- (xi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16 and SEQ ID NO: 337;
- (xii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16 and SEQ ID NO: 71;
- (xiii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 36 and SEQ ID NO: 1;
- (xiv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 19 and SEQ ID NO: 1;
- (xv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 40 and SEQ ID NO: 1;
- (xvi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 22 and SEQ ID NO: 1;
- (xvii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 46 and SEQ ID NO: 1;

- (xviii) SEQ ID NO: 7 and SEQ ID NOs: 27-29 and SEQ ID NO: 24 and SEQ ID NO: 4;
- (xix) SEQ ID NO: 7 and SEQ ID NOs: 27-29 and SEQ ID NO: 65 and SEQ ID NO: 11; or
- (xx) SEQ ID NO: 7 and SEQ ID NO: 38 and SEQ ID NO: 64 and SEQ ID NO: 13.

26. (Withdrawn) The method according to claim 22 wherein the subject nucleotide sequences are co-expressed as a profile of four, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 9 and SEQ ID NO: 68 and SEQ ID NO: 11;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 24 and SEQ ID NO: 69 and SEQ ID NO: 11;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 53 and SEQ ID NO: 11;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 68 and SEQ ID NO: 11;
- (v) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 69 and SEQ ID NO: 13;
- (vi) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 36 and SEQ ID NO: 13;
- (vii) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 11 and SEQ ID NO: 337;
- (viii) SEQ ID NO: 7 and SEQ ID NO: 53 and SEQ ID NO: 72 and SEQ ID NO: 11;
- (ix) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 26 and SEQ ID NO: 46;
- (x) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 36 and SEQ ID NO: 11;
- (xi) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 46 and SEQ ID NO: 11;
- (xii) SEQ ID NO: 7 and SEQ ID NO: 69 and SEQ ID NO: 46 and SEQ ID NO: 11;
- (xiii) SEQ ID NO: 43 and SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24;
- (xiv) SEQ ID NO: 43 and SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16;
- (xv) SEQ ID NO: 43 and SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 1;
- (xvi) SEQ ID NO: 43 and SEQ ID NO: 7 and SEQ ID NOs: 27-29 and SEQ ID NO: 24;
- (xvii) SEQ ID NO: 43 and SEQ ID NO: 7 and SEQ ID NO: 36 and SEQ ID NO: 11;
- (xviii) SEQ ID NO: 43 and SEQ ID NO: 7 and SEQ ID NO: 59 and SEQ ID NO: 1;
- (xix) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 49 and SEQ ID NO: 24; or
- (xx) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 49 and SEQ ID NO: 22.

27. (Withdrawn) The method according to claim 22 wherein the subject nucleotide sequences are co-expressed as a profile of four, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 49 and SEQ ID NO: 1;

- (ii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 56 and SEQ ID NO: 1;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 56 and SEQ ID NO: 1;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 9 and SEQ ID NO: 1;
- (v) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 24 and SEQ ID NO: 19;
- (vi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 65 and SEQ ID NO: 37;
- (vii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 53 and SEQ ID NO: 48;
- (viii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 53 and SEQ ID NO: 1;
- (ix) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 72 and SEQ ID NO: 1;
- (x) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 69 and SEQ ID NO: 16;
- (xi) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 16 and SEQ ID NO: 19;
- (xii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 19 and SEQ ID NO: 1;
- (xiii) SEQ ID NO: 7 and SEQ ID NO: 14 and SEQ ID NO: 1 and SEQ ID NO: 71;
- (xiv) SEQ ID NO: 7 and SEQ ID NO: 49 and SEQ ID NO: 64 and SEQ ID NO: 11;
- (xv) SEQ ID NO: 7 and SEQ ID NO: 38 and SEQ ID NO: 56 and SEQ ID NO: 13;
- (xvi) SEQ ID NO: 7 and SEQ ID NO: 38 and SEQ ID NO: 56 and SEQ ID NO: 13;
- (xvii) SEQ ID NO: 7 and SEQ ID NO: 56 and SEQ ID NO: 64 and SEQ ID NO: 11;
- (xviii) SEQ ID NO: 7 and SEQ ID NO: 56 and SEQ ID NO: 53 and SEQ ID NO: 6;
- (xix) SEQ ID NO: 7 and SEQ ID NO: 9 and SEQ ID NO: 64 and SEQ ID NO: 16; or
- (xx) SEQ ID NO: 7 and SEQ ID NO: 9 and SEQ ID NO: 64 and SEQ ID NO: 13.

28. (Withdrawn) The method according to claim 22 wherein the subject nucleotide sequences are co-expressed as a profile of four, which profile is selected from the list of:

- (i) SEQ ID NO: 7 and SEQ ID NO: 9 and SEQ ID NO: 68 and SEQ ID NO: 11;
- (ii) SEQ ID NO: 7 and SEQ ID NO: 24 and SEQ ID NO: 72 and SEQ ID NO: 13;
- (iii) SEQ ID NO: 7 and SEQ ID NO: 24 and SEQ ID NO: 72 and SEQ ID NO: 46;
- (iv) SEQ ID NO: 7 and SEQ ID NO: 24 and SEQ ID NO: 72 and SEQ ID NO: 71;
- (v) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 72 and SEQ ID NO: 16;
- (vi) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 68 and SEQ ID NO: 11;
- (vii) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 69 and SEQ ID NO: 11;
- (viii) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 19 and SEQ ID NO: 11;

- (ix) SEQ ID NO: 7 and SEQ ID NO: 64 and SEQ ID NO: 13 SEQ ID NO: 11;
- (x) SEQ ID NO: 7 and SEQ ID NO: 53 and SEQ ID NO: 72 and SEQ ID NO: 11;
- (xi) SEQ ID NO: 7 and SEQ ID NO: 53 and SEQ ID NO: 15 and SEQ ID NO: 11;
- (xii) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 68 and SEQ ID NO: 11;
- (xiii) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 69 and SEQ ID NO: 11;
- (xiv) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 36 and SEQ ID NO: 11;
- (xv) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 19 and SEQ ID NO: 11;
- (xvi) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 46 and SEQ ID NO: 11;
- (xvii) SEQ ID NO: 7 and SEQ ID NO: 72 and SEQ ID NO: 46 and SEQ ID NO: 1;
- (xviii) SEQ ID NO: 7 and SEQ ID NO: 68 and SEQ ID NO: 16 and SEQ ID NO: 36; or
- (xix) SEQ ID NO: 7 and SEQ ID NO: 68 and SEQ ID NO: 36 and SEQ ID NO: 11.

29. (Withdrawn and currently amended) The method according to ~~any one of claims 16, 17 or 18~~ claim 16 wherein the subject detection is directed to the expression product of said nucleic acid sequences.

30. (Withdrawn and currently amended) The method according to ~~any one of claims 16, 17, 18 or 29~~ claim 16 or 29 wherein said neoplasm is a colorectal neoplasm.

31. (Withdrawn) The method according to claim 30 wherein said colorectal neoplasm is a colorectal adenoma.

32. (Previously presented) The method according to claim 1 or 16, wherein said method is directed to monitoring for the onset or progression of said adenoma in said human.

33. (Previously presented) The method according to claim 1 or 16 wherein said sample is any biological sample of colorectal origin or a biopsy sample.

34-82. (Cancelled)

83. (Previously presented) The method according to claim 1 or 16 wherein said colorectal adenoma is a tubular adenoma, tubulovillous adenoma or villous adenoma.

84. (New) A method for determining an increased likelihood of the presence of colorectal adenoma in a human, said method comprising

measuring the level of an mRNA which comprises the RNA equivalent of SEQ ID NO: 7 or the protein encoded by said mRNA in a blood, serum, stool or gastrointestinal tract sample from said human and

determining an increased likelihood of the presence of colorectal adenoma when the level of said mRNA or the protein is increased in said human relative to the normal level of said mRNA or said protein from healthy individuals.